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ABSTRACTS

ISPOR 6TH ASIA-PACIFIC CONFERENCE ABSTRACTS

RESEARCH PODIUM PRESENTATIONS – SESSION I

CANCER OUTCOMES RESEARCH STUDIES

CN1
TREATMENT STRATEGIES FOR STAGE IB CERVICAL CANCER: A COST-EFFECTIVENESS ANALYSIS
Lee JY, Kim JW
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OBJECTIVES: To access the cost-effectiveness of two common strategies and alternative triage strategy for patients with stage IB cervical cancer. **METHODS:** A Markov state transition model was constructed to compare three strategies: (1) radical hysterectomy followed by tailored adjuvant therapy (RH+TA); (2) primary chemoradiation (pCCRT); (3) Triage strategy, in which patients without risk in pre-operative MRI undergo primary surgery and those with any risk factors in MRI undergo primary CCRT. All relevant literatures were identified to extract the probability data. Direct medical costs were estimated from Korean National Health Insurance database. Strategies were compared using incremental cost per year of life saved (YLS). **RESULTS:** RH+TA strategy was the least expensive strategy. Although pCCRT strategy had similar outcomes, pCCRT strategy was more expensive than RH+TA ($10,945 vs. $7,257). A sensitivity analysis showed that RH+TA is cost-effective than pCCRT when the percentage of patients who require no adjuvant therapy after radical hysterectomy exceeds 30%. Triage strategy was more expensive and more effective, with an incremental cost-effectiveness ratio (ICER) of $39,271 per year of life saved (YLS) compared to RH+TA. Results are relatively sensitive to variation in how the rate of patients who require adjuvant therapy after surgery decrease in MRI-based strategy. **CONCLUSIONS:** RH+TA is cost-effective than pCCRT in Stage IB cervical cancer. Given the current high rates of adjuvant therapy after primary radical surgery in Stage IB cervical cancer, MRI-based strategy has potential to be cost-effective when compared to RH+TA at high test performance and at the lower range of test costs.

CN2
COST-EFFECTIVENESS ANALYSIS OF COMPUTED TOMOGRAPHIC COLONOGRAPHY VERSUS DOUBLE CONTRAST BARIUM ENEMA FOR INVESTIGATION OF PATIENTS WITH SYMPTOMS OF COLORECTAL CANCER: ECONOMIC EVALUATION ALONGSIDE THE SIGGAR TRIAL
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OBJECTIVES: To assess costs and cost effectiveness of CTC compared with BE in patients with symptomatic colorectal cancers from the UK NHS perspective. **METHODS:** A Markov model with Monte Carlo simulation was developed to assess the costs, life years and quality adjusted life years associated with CTC vs. BE in patients with symptoms suggestive of bowel cancer. The initial diagnostic findings, follow up investigations for suspected colonic lesions, confirmed diagnoses, and resources used were estimated from individual patient data from the SIGGAR trial. We extrapolated the trial results over a patient's life time. Transition probabilities among small polyps, large polyps and different stages of cancer, and the costs and utilities associated with each state, were derived from the literature. Outcomes were measured as incremental cost per life year saved and incremental cost per quality adjusted life year (QLAY) gained. Probabilistic sensitivity analysis was conducted across key input values. **RESULTS:** The Mean life time costs required to reach a diagnosis were £658 and £718 for BE and CTC trial arms respectively leading to a mean difference of £61 for each patient having a diagnostic test. The (discounted) life years obtained were 9.943 and 9.975, and (discounted) QALYs were 8.900 and 8.938 for BE and CTC respectively leading to 0.032 life years, 0.038 QALYs advantaged for CTC. The incremental costs per life year gained was £1,856 (£1,133 without discounting), and per QALYs gained at £1,598 (£969 without discounting) for CTC compared with BE. The probabilistic sensitivity analysis produced that the probability of CTC being cost effective was 75% at a willingness-to pay value of £20,000 for a QALY gained. **CONCLUSIONS:** This analysis showed that CTC was clearly cost effective over BE. Therefore CTC should be recommended in place of BE as one of the primary diagnostic methods for patients referred with symptoms suggestive of colorectal cancer.

CN3
BUDGET IMPACT ANALYSIS OF CRIZOTINIB TREATMENT IN ALK+ NON-SMALL-CELL LUNG CANCER PATIENTS IN THAILAND
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OBJECTIVES: Crizotinib, a first-in-class compound that specifically inhibits a tumor-specific protein called anaplastic lymphoma kinase (ALK) of non-small-cell lung cancer (NSCLC) is currently not reimbursable to all Thai patients. This budget impact analysis was aimed at examining the financial impact if crizotinib was subsidized for all identified ALK+ NSCLC patients in Thailand. **METHODS:** A 3-year budget impact model is designed to capture differences in outcomes related to the overall direct costs incurred from receiving crizotinib versus other standard therapies for 1st, 2nd and 3rd lines of care. Local incidence of NSCLC and ALK+ rate were estimated from the national registry data and Chiang Mai University (CMU) Hospital data. The government procurement database was the reference for the drug cost. Other specific medical costs came from CMU Hospital. Cost attributable to prerequisite diagnostic testing was also incorporated into the model and testing strategies were created according to standard practice. **RESULTS:** An estimated 5,377 new cases were diagnosed as advanced NSCLC annually and referred for further testing prior to receiving therapy. The net budget impact was estimated under two scenarios. In the first scenario where crizotinib was subsidized with no restriction, the average net budgetary impact in the 3-year period was 576 million baht (US$18 million) from the average 414 patients receiving crizotinib yearly. The second scenario in where crizotinib was restrictively used as 2nd or 3rd line, the average 3-year financial difference was 284 million baht (US$8.9 million) from the average 214 patients receiving crizotinib yearly. Univariate sensitivity analysis showed that crizotinib acquisition cost and prevalence of ALK+ were the leading parameters influencing the results of the first and second scenarios, respectively. **CONCLUSIONS:** This model captured the clinical and economic values of crizotinib for ALK+ NSCLC patients in Thailand. Nevertheless, humanistic value should be taken into account and still needs to be explored.

CN4
STUDY ON THE DIRECT MEDICAL COST OF MALIGNANT NEOPLASMS INPATIENTS WITH URBAN BASIC HEALTH INSURANCE SCHEME IN CHINA
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OBJECTIVES: By estimating the direct medical cost of malignant neoplasms inpatients with urban basic health insurance scheme(UBHIS) in 2011 in China, we try to provide evidence for the government to manage the illness more effectively. **METHODS:** A nationwide, cross-sectional sampling of malignant neoplasms inpatients with UBHIS was extracted from the China Health Insurance Research Association claim database. A retrospective analysis was adopted and all results were extrapolated to the whole country according to the scale of the population, economics and other factors in the sample cities. **RESULTS:** The visits of malignant neoplasms inpatients, accounted for 7.64% of total visits, were 2.92 million. The rank of main malignant neoplasms inpatients were lung cancer, breast cancer, gastric cancer, rectum cancer, colon cancer and liver cancer, which accounted for 54.09% in all malignant neoplasms inpatients. The hospitalization expenses of malignant neoplasms inpatients was 42.61 billion yuan, as the top costs, which accounted for 13.59% in all hospitalization expenses; the proportion of the above six kinds of cancer costs was 52.00% (22.16 billion yuan) in all hospitalization expenses of malignant neoplasms inpatients. The average hospitalization expenses of each visit was 14,594 yuan (14,513 yuan in 2010), the average hospitalization expenses of every day was 914 yuan (increasing by 8.7% from 2010). The composition of hospitalization expenses: drugs 53.85%, diagnosis and treatments 39.00%, medical consumables 7.15%. Reimbursement by UBHIS was 69.34% (66.44% in 2010), about 29.55 billion yuan. **CONCLUSIONS:** Cancer brought large disease burden in China, particularly, six kinds of cancer mentioned above have much hospitalization expenses. The reimbursement by UBHIS added 3% from 2010 to 2011, reducing the economic burden of malignant neoplasms inpatients. However, for the poor, the personal burden is still a problem. China has launched supplemental insurance for catastrophic health expenditure, relieving the burden of disease constantly.

DIABETES OUTCOMES RESEARCH STUDIES

DB1
IMPACT OF GLP-1RA ON HEART RATE, BLOOD PRESSURE AND HYPERTENSION AMONG TYPE 2 DIABETES: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS
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